

INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB2004/000419

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 B01D35/147 B01D27/10

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 B01D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PATENT ABSTRACTS OF JAPAN vol. 1999, no. 05, 31 May 1999 (1999-05-31) & JP 11 047518 A (MITSUBISHI ELECTRIC CORP), 23 February 1999 (1999-02-23) abstract	1,5
A	EP 1 312 405 A (FILTRAUTO) 21 May 2003 (2003-05-21)	1,5-10
A	figure 2	
A	US 3 970 557 A (SHOUP STEPHEN G) 20 July 1976 (1976-07-20)	1,5-10
A	figure 1	
A	US 2003/010725 A1 (DRUGA LARRY A) 16 January 2003 (2003-01-16)	1,5-10
	figures 3-7	

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

6 July 2004

Date of mailing of the international search report

13/07/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax: (+31-70) 340-3016

Authorized officer

Hoffmann, A

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB2004/000419

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
JP 11047518	A	23-02-1999	JP	3468041 B2		17-11-2003
EP 1312405	A	21-05-2003	FR EP	2832323 A1 1312405 A1		23-05-2003 21-05-2003
US 3970557	A	20-07-1976	GB JP JP	1466805 A 50096974 A 57018930 B		09-03-1977 01-08-1975 20-04-1982
US 2003010725	A1	16-01-2003	NONE			